

**WHAT IS CLAIMED IS:**

1. A cosmetic composition that mimics  
sebum, comprising at least one lipophilic fraction in  
5 turn comprising at least:  
from 5% to 20% of squalene,  
from 50% to 70% of a mixture of triglycerides of linear  
fatty acids having a chain of 12 to 22 carbon atoms and  
of linear fatty acids having a chain of 12 to 22 carbon  
10 atoms,  
from 15% to 25% of esters of linear fatty acids and of  
linear fatty alcohols having chains of 12 to 22 carbon  
atoms,  
from 0.5% to 3% of esters of cholesterol whose acid  
15 fraction comprises a chain of 12 to 22 carbon atoms,  
and  
from 0% to 5% of cholesterol,  
it being understood that the ratio of unsaturated fatty  
chains to saturated fatty chains lies between 10 and  
20 0.1.

2. The composition as claimed in the  
preceding claim, characterized in that the squalene is  
in a quantity representing from 12% to 18% of the  
lipophilic fraction.

25 3. The composition as claimed in either one  
of claims 1 and 2, characterized in that the mixture of  
triglycerides of linear fatty acids having a chain of

12 to 22 carbon atoms and of linear fatty acids having a chain of 12 to 22 carbon atoms are in a quantity representing from 56% to 64% of the lipophilic fraction.

5                    4.    The composition as claimed in any one of claims 1 to 3, characterized in that the esters of linear fatty acids and of linear fatty alcohols having chains of 12 to 22 carbon atoms are in a quantity representing from 19% to 22% of the lipophilic  
10 fraction.

                  5.    The composition as claimed in any one of claims 1 to 4, characterized in that the esters of cholesterol whose acid fraction comprises a chain of 12 to 22 carbon atoms are in a quantity representing from  
15 0% to 1.5% of the lipophilic fraction.

                  6.    The composition as claimed in any one of claims 1 to 5, characterized in that the cholesterol is in a quantity representing from 1% to 3% of the lipophilic fraction.

20                   7.    The composition as claimed in any one of claims 1 to 6, characterized in that the ratio of unsaturated fatty chains to saturated fatty chains is between 5 and 0.2.

                  8.    A cosmetic composition that mimics  
25 sebum, characterized in that it comprises at least from 12% to 18% of squalene, from 0% to 10% of trimyristin, from 0% to 10% of trimyristolein, from 0% to 10% of

tripalmitin, from 0% to 10% of tripalmitolein, from 0% to 20% of triolein, from 0% to 60% of glycerol, from 0% to 10% of tristearin, from 0% to 15% of oleic acid, from 0% to 10% of palmitic acid, from 0% to 15% of palmitoleic acid, from 0% to 10% of myristic acid, from 0% to 10% of myristoleic acid, from 5% to 20% of myristyl oleate, from 5% to 10% of palmityl oleate, from 0.5% to 3% of cholesteryl palmitate and from 0% to 5% of cholesterol, it being understood that the sum of the percentages of the free fatty acid fractions added to the sum of the percentages of the triglyceride fractions will be between 55% and 65% and that the ratio of unsaturated fatty chains to saturated fatty chains is between 8 and 0.2.

9. A cosmetic composition that mimics sebum, characterized in that it comprises at least 16% of squalene, 8% of tripalmitin, 18% of tripalmitolein, 12% of triolein, 10% of oleic acid, 7% of palmitoleic acid, 5% of myristoleic acid, 10% of myristyl oleate, 10% of palmityl oleate, 1% of cholesteryl oleate and 3% of cholesterol.

10. The cosmetic composition that mimics sebum as claimed in any one of claims 1 to 9, characterized in that it also comprises vitamin E at a concentration of between 0.0025% and 0.01% and preferably between 0.001% and 0.1%.

11. A method of preparing a cosmetic composition as described in any one of claims 1 to 10, comprising a first step of weighing each of the ingredients included in the composition in a sterile  
5 receptacle, opaque to the light, previously coated with a non-stick coating, a second step of replacing the air with an inert gas, a third step of raising the temperature to a temperature between 50°C and 100°C, preferably 80°C, and a fourth step of maintaining the  
10 temperature for a time of between 25 and 45 minutes, preferably 30 and 40 minutes, with stirring.

12. The method as claimed in claim 11, the inert gas being chosen from argon, nitrogen, neon, krypton or xenon.

15 13. The method as claimed in the preceding claim, characterized in that the inert gas is argon.

14. The cosmetic composition as claimed in any one of claims 1 to 10, liable to be obtained by the method of any one of claims 11 to 13.

20 15. The use of a composition as claimed in any one of claims 1 to 10 and 14 to alleviate the unsightly vexations linked to a deficiency of sebum.

16. The use as claimed in the preceding claim for treating dry skin.

25 17. The use of a composition as claimed in any one of claims 1 to 10 and 14 to control the lateral diffusion of cosmetic active agents or formulations.

18. The use as claimed in the preceding claim, characterized in that the composition is applied prior to the application of the cosmetic active agents or formulations.

5           19. The use of a composition as described in any one of claims 1 to 10 and 14 for the preparation of a skin equivalent comprising a sebum equivalent.

20. A skin equivalent comprising a sebum equivalent.

10           21. The skin equivalent as claimed in the preceding claim, characterized in that the sebum equivalent is a cosmetic composition as described in any one of claims 1 to 10 and 14.

22. The use of a skin equivalent comprising  
15 a sebum equivalent to study the interactions between the sebum, the epidermis and/or the dermis, particularly in cutaneous homeostasis.

23. The use of a skin equivalent comprising a sebum equivalent to study the interactions between  
20 the cutaneous tissue, particularly the epidermis and/or the dermis, and the sebum after modification of the latter by different exogenous and/or endogenous environmental factors.

24. The use of a skin equivalent comprising  
25 a sebum equivalent to evaluate the effectiveness, the penetration or the toxicity of starting materials and of cosmetic formulations.

25. The use of a skin equivalent comprising a sebum equivalent to study comedogenesis in the presence or absence of cosmetic active agents or formulations.

5           26. A method of preparing a dispersion of the cosmetic composition of the invention comprising a step of dispersing the composition as prepared according to the invention and its maintenance at a temperature between 50°C and 100°C, preferably 80°C, in  
10 a liquid physiological medium.

27. The method as claimed in claim 26, characterized in that the liquid physiological medium is chosen from sweat, physiological saline, or alternatively a cell culture medium.

15           28. The method as claimed in either one of claims 26 and 27, characterized in that the desired quantities of artificial sebum and of liquid physiological medium are such that the application of 2 µl of the dispersion provides the skin with the  
20 necessary physiological quantity, that is 100 µg of sebum.